

### ABSTRACT

Disclosed herein is a hail resistant roof system having a roof deck. An insulation layer is supported by the roof deck. An energy absorbing layer supported by the insulation layer and a waterproof membrane loose laid over the energy absorbing layer. A wind blown debris resistant roof system is disclosed that includes a roof deck with a secondary waterproof membrane disposed over the deck. A layer of stiff material is attached to the roof deck and a primary waterproofing membrane is supported by the stiff material. Further, a roof insulation and waterproofing construction upwardly adjacent the waterproofing membrane. Also disclosed herein is a hail resistant roof system. The system includes a roof deck with a secondary waterproofing membrane. An insulation layer is supported by the roof deck. An energy absorbing layer is supported by the insulation layer and a primary waterproof membrane is loose laid over the energy absorbing layer.